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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 09/595,275   | 06/15/2000  | Janne parantainen    | 297-009504-US(PAR)  | 9365             |
| 2512   | 7590        | 07/07/2006           | EXAMINER            |                  |
| PERMAN & GREEN<br>425 POST ROAD<br>FAIRFIELD, CT 06824 |             |                      | KIM, KEVIN          |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 2611                |                  |

DATE MAILED: 07/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/595,275

Applicant(s)

PARANTAINEN, JANNE

Examiner

Kevin Y. Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-6 is/are rejected.
- 7) ☒ Claim(s) 2,3 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on May 19, 2006 has been entered.

### ***Response to Arguments***

2. Applicant's arguments filed May 19, 2006 have been fully considered but they are not persuasive.

Applicant amended claims 1 and 6, the rejection of which was affirmed by the Board of Patent Appeals and Interferences in its decision of March 17, 2006, in an attempt to make salient that channel coding and/or interleaving is connection-specific. Applicant further argues that, since the Kronestedt reference teaches operating all the radio links of the cell operate in the same channel coding mode, this reference fails to teach the connection-specific feature of the claimed invention. However, as pointed out in the Board's decision, the Kronestedt reference was relied on in order to establish the obviousness of mapping request messages to predetermined channel coding scheme. See page 6. The Board further found that the admitted prior art discloses that the mobile terminal generates a request message to set up or change a specific

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connection. See page 5. Additionally, the Kronestedt reference teaches that a selected channel coding mode is implemented by the mobile station as well as by the base station. See col. 5, lines 16-19. The implementation by the mobile station and the base station is independent in that the mode information is transmitted by a mode determiner. See col.4, lines 35-39.

In sum, the admitted prior art which is operating in a connection specific manner would have been modified to set up or change the coding and/or interleaving scheme in response to a received quality of service parameters transmitted by the mobile station.

***Claim Rejections - 35 USC § 103***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1,4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Kronestedt et al (US 6,308,082 previously cited).

**Claim 1.**

The admitted prior art teaches a method for a communication connection over a radio interface between a mobile terminal and a base station of a cellular packet radio system comprises the step of:

generating and communicating a request message at the mobile terminal to the decision-making device, said request message indicating a need for setting up a new radio bearer between the mobile terminal and the base station or changing the characteristics of an existing radio bearer between the mobile terminal and the base station (see page 5, lines 32-34 of the specification of the present application) and indicating a certain set of Quality of Service

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parameters selected by the mobile terminal based on an expected use of the specific communication connection for independent application to the specific connection (see page 5, lines 32-34 of the specification of the present application).

The admitted prior art does not teach the steps of "mapping said set of Quality of Service parameters to a certain first channel coding and/or interleaving scheme as a part of the channel coding and/or interleaving scheme allocation made by the decision-making device" and "communicating said first channel coding and/or interleaving scheme to the base station and the terminal for them independently to apply said first channel coding and/or interleaving scheme in said specific communication connection".

Kronstedt discloses communicating a request message to the decision-making device (col. 3, lines 53-56), said request message indicating a certain set of Quality of Service parameters associated with certain specific communication connection (col. 3, lines 56-61), mapping said set of Quality of Service parameters to a certain first channel coding and/or interleaving scheme as a part of the connection-specific channel coding and/or interleaving scheme allocation made by the decision-making device (46 in Fig. 4, also see col. 4, lines 30-34, col. 2, lines 60-62, col. 5, lines 24-30) and communicating said first channel coding and/or interleaving scheme to the base station and the terminal for them to independently apply said first channel coding and/or interleaving scheme in said specific communication connection (44 in Fig. 4, col. 4, lines 35-36, col. 5, lines 16-20).

Kronstedt et al further teach that a good quality link needs little or no channel coding to achieve an acceptable BER. On the other hand, in order to achieve an acceptable BER, a poor connection may need a higher channel-coding rate (col. 1, lines 37-42). Therefore, it is

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advantageous to use a link adaptation algorithm that adaptively chooses, from multiple coding schemes, the one channel coding scheme that achieves the highest throughput based on the time varying quality of the link (col. 1, lines 43-59). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the steps of "mapping said set of Quality of Service parameters to a first channel coding and/or interleaving scheme as a part of the channel coding and/or interleaving scheme allocation made by the decision-making device" and communicating said first channel coding and/or interleaving scheme to the base station and the terminal for them to apply said first channel coding and/or interleaving scheme in said first communication connection" into the communication connection method of the admitted prior art, so as to achieve highest throughput that is adapted to the link quality.

Claims 4 and 5.

The claimed limitation of communicating a request message in response to an observed need is inherent since a request message would not be sent if it were not needed to establish or re-establish a communication connection.

Claim 6.

This claim recites equivalent limitations as in claim 1, and is therefore rejected for the reason applied to claim 1 above.

#### ***Allowable Subject Matter***

5. Claims 2 and 3 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim

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and any intervening claims.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Park et al (US pat. No. 6,902,602) describes that quality of service parameters include BER and FER among other things at col.3, lines 44-57.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Y. Kim whose telephone number is 571-272-3039. The examiner can normally be reached on 8AM --5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

July 2, 2006

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*Kevin Kim*

**KEVIN KIM  
PATENT EXAMINER**